What is claimed is:

1. A flexure correction device for correcting deviation in position and/or orientation of a distal end of an arm due to flexure of a robot, comprising:

reference flexure amount storage means storing a plurality of reference flexure amounts representing deviations in position and/or orientation of the distal end of the arm, which are measured at a plurality of positions in a robot operating area under a plurality of load conditions different in weight and/or position of center of gravity;

designating means for designating one or more reference flexure amounts to be used in the plurality of stored reference flexure amounts;

flexure amount calculation means for obtaining a flexure amount for each position of taught points in a robot operation program based on the designated reference flexure amounts; and

correction means for correcting position/orientation at each of the taught points based on the calculated flexure amount.

2. A flexure correction device according to claim 1, constituted by an off-line programming apparatus.

3. A flexure correction device according to claim 1, constituted by a robot controller.

4. A flexure correction device for correcting deviation in position and/or orientation of a distal end of an arm due to flexure of a robot, comprising:

reference flexure-amount data storage means storing a plurality of reference flexure amounts representing deviations in position and/or orientation

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of the distal end of the arm, which are measured at a plurality of positions in a robot operating area under a plurality of load conditions different in weight and/or position of center of gravity;

designation means for designating one or more reference flexure amounts to be used in the plurality of stored reference flexure amounts;

flexure amount calculation means for calculating a flexure amount for each of taught points and interpolation points based on the designated flexure amount in performing playback of a robot operation program; and

correction means for correcting position/orientation at each the taught points and interpolation points based on the calculated flexure amount.

5. A flexure correction device according to claim 2, constituted by a robot controller.

6. A flexure correction method for correcting deviation in position and/or orientation of a distal end of an arm due to flexure of a robot, using an off-line programming apparatus or a robot controller, comprising the steps of:

measuring flexure amounts representing deviations in position and/or orientation of the distal end of the arm at a plurality of positions in a robot operating area for each of a plurality of load conditions different in weight and/or position of center of gravity, and storing the measured flexure amounts in storage means as reference flexure amounts;

selecting and designating one or more of the plurality of reference flexure amounts stored in the storage means in accordance with weight and/or position of center of gravity of a tool to be used;

calculating a flexure amount for each of taught points in a robot operation program based on the designated reference flexure amounts using the off-line programming apparatus or the robot controller; and

correcting position/orientation at each of the taught points based on the

calculated flexure amount.

7. A flexure correction method for correcting deviation in position and/or orientation of a distal end of an arm due to flexure of a robot using a robot controller, comprising the steps of:

measuring flexure amounts representing deviations in position and/or orientation of the distal end of the arm at a plurality of positions in a robot operating area for each of a plurality of load conditions different in weight and/or position of center of gravity, and storing the measured flexure amounts in storage means as reference flexure amounts;

selecting and designating one or more of the plurality of reference flexure amounts stored in the storage means in accordance with weight and/or position of center of gravity of a tool to be used;

calculating a flexure amount for each of taught points and interpolation points based on the selected reference flexure amounts in a playback operation of a robot operation program; and

correcting position/orientation at each of the taught points and interpolation points based on the calculated flexure amount.